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EXAMINER
TSUI, WILSON W

ART UNIT	PAPER NUMBER
2178	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/537,501	HEUER ET AL.
	Examiner	Art Unit
	Wilson Tsui	2178

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _23 July 2007_.

2a) ☒ This action is **FINAL.** 2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _17-30_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _17-30_ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on _03 June 2005_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some * c)☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _9/07_

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1.   This action is in response to the amendment filed on: 07/23/2007.

2. .   Claims 1-16 are cancelled. Claims 22, 23, 28, and 30 are amended. Claims 17,

23, 29, and 30 are independent claims. Claims 17-30 are pending.

3.   Claims 17-30 remains rejected under 35 U.S.C. 103(a) as being unpatentable

over Wan, further view of Hunter.

4.   The abstract of the disclosure is in accordance with 37 CFG 1.54(b)(4).

5.   The 35 USC 112 rejections with respect to claims 22, and 28 are withdrawn, in

view of applicant's amendment.

Priority

6.   Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C.

119(a)-(d) with respect to PCT/EP03/13511 filed on 01/12/2003, foreign priority based

on application filed in Germany on 12/03/2002, and foreign priority based on application

filed in Germany on 08/29/2003.

Drawings

7.   The drawings filed on 06/03/2005 are accepted.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

8.   Claims 17-30 remains rejected under 35 U.S.C. 103(a) as being unpatentable

over Wan (US Application: US 2004/0028049 A1, published: Feb. 12, 2004, filed: Oct.

5, 2001), further view of Hunter ("An Overview of the MPEG-7 Description Definition

Language (DDL)", published: June, 2001, pages 765-772).

With regards to claim 17, Wan teaches a method for encoding an XML-based

document including contents according to an XML schema language definition

(paragraph 0021), said method comprising the steps of:

- *Generating a coded binary representation of the document* (whereas, a binary

  representation of the document is implemented through encoding) *by assigning*

  binary structure codes to the contents of the document via code tables

  (paragraphs 0011, 0017, 0044: whereas, a structure stream is encoded with

  code tables.)

- *Assigning structure codes to textual contents of datatypes* (paragraphs 0049,

  0050, 0054: whereas structure codes are assigned to data types).

However, Wan does not expressly teach the datatypes are *of a complex type data type*

with a mixed content model.

Hunter teaches the datatypes are *of a complex type data type with a mixed content*

model (page 768, S768: whereas, datatypes include complex type data with a mixed

content model.)

It would have been obvious to one of the ordinary skill in the art at the time of the

invention to have modified Wan's binary encoding of datatypes, to have further included

the complex datatypes for describing an MPEG stream, as taught by Hunter. The

combination of Wan and Hunter would have allowed Wan to have "allowed children elements in their (complex types) content and may carry attributes" (page 767, S767: Hunter).

With regards to claim 18, which depends on claim 17, Wan and Hunter teach *wherein the assignment of the structure codes to the textual contents of a complex type data type with mixed content model*, as similarly explained in the rejection for claim 17, and is rejected under similar rationale. Furthermore, Wan teaches the assignment of structure codes *is effected exclusively via OperandTBC coding tables* (page 13: . whereas, an ID code table is used to store hierarchical/tree data for a set of nodes).

With regards to claim 19, which depends on claim 17, Wan and Hunter teach *wherein the textual contents of a complex type data type with the mixed content model*, as similarly explained in the rejection for claim 17, and is rejected under the same rationale. Additionally, Wan teaches the textual contents are further *assigned position codes* (paragraph 0109: whereas node locators are used for assigning position codes).

With regards to claim 20, which depends on claim 19, Wan teaches *wherein single element position codes and/or multiple element position codes are used in the assignment of the position codes* (paragraph 0102, 0109: whereas, one or more node locators are used for assigning position codes).

With regards to claim 21, which depends on claim 19, Wan teaches *wherein the position codes are encoded using codes of variable length* (paragraph 0104: whereas each node/node-locator includes a variable size field).

/

With regards to claim 22, which depends on claim 21, Wan teaches *wherein the position codes are encoded using a code vluimsbf5* (page 11: whereas, as declared in the 'size_in_byte' field of a bit stream, a variable length unsigned integer, and most significant bit(s)-first, format is used as part of the encoding process).

With regards to claim 23, Wan teaches *a method for decoding a binary representation of an XML-based document* (paragraph 0075), comprising:

Receiving a coded binary representation of the document by assigning binary structure codes to the contents of the document via code tables: (paragraphs 0011, 0017, 0044: whereas, a structure stream is encoded and then decoded with code tables);

Assigning structure codes to textual contents of datatypes (paragraphs 0049, 0050, 0054: whereas structure codes are assigned to data types).

Converting the assigned structure codes into the textual contents of the XML-based document that were assigned to the structure codes (paragraph 0075: whereas, a decoder implements the conversion process).

However, Wan does not expressly teach the datatypes are *of a complex type data type with a mixed content model.*

Hunter teaches the datatypes are *of a complex type data type with a mixed content model* (page 768, S768: whereas, datatypes include complex type data with a mixed content model.)

It would have been obvious to one of the ordinary skill in the art at the time of the invention to have modified Wan's binary encoding of datatypes, to have further included the complex datatypes for describing an MPEG stream, as taught by Hunter. The

combination of Wan and Hunter would have allowed Wan to have "allowed children elements in their (complex types) content and may carry attributes" (page 767, S767: Hunter).

With regards to claim 24, which depends on claim 23, Wan teaches *wherein the assignment is effected by means of structure codes (SBC) via OperandTBC coding tables* (page 13: whereas, an ID code table is used to store hierarchical/tree data for a set of nodes), and also paragraph 0075, whereas a complementary decoder process is implemented.

With regards to claim 25, which depends on claim 23, Wan and Hunter teaches *wherein binary representations of textual contents of a "complex type" data type with the "mixed" content model*, as similarly explained in the rejection for claim 23, and is rejected under similar rationale. Additionally Wan teaches *addressed by means of "position codes" are further converted into textual contents at the assigned position* (paragraphs 0109-0112: whereas, reconstruction/decoding takes place by converting into textual contents at the assigned position).

With regards to claim 26, which depends claim 25, Wan teaches wherein *the "position codes" comprise "single element position codes" (SPC) and/or "multiple element position codes" (MPC)* (paragraphs 0102, 0109 : whereas, one or more node locators are used for position codes).

With regards to claim 27, which depends on claim 25, Wan teaches wherein the *"position codes" are encoded using codes of variable length* (paragraph 0104: whereas each node/node-locator includes a variable size field)

With regards to claim 28, which depends on claim 27, Wan teaches *wherein the*

"position codes" are encoded using a code vluimsbf5 (page 11: whereas, as declared in

the 'size_in_byte' field of a bit stream, a variable length unsigned integer, and most

significant bit(s)-first, format is used as part of the encoding process).

With regards to claim 29, for a device performing a method similar to the method

of claim 17, is rejected under similar rationale.

With regards to claim 30, for a device performing a method similar to the method

of claim 23, is rejected under similar rationale.

Response to Arguments

9.   Applicant's arguments filed 07/23/2007 have been fully considered but they are

not persuasive.

10.   The applicant first argues that "there is no apparent reason to combine Wan with

Hunter in the manner suggested in the Office Action", and that "Wan only discloses

tagging simple elements and teaches away from using the claimed features" (bottom of

page 6, applicant remarks). Furthermore, the applicant argues that Wan further teaches

that structure and text must be separated, so that elements and associated values are

coded into two different streams or stream sections, if concatenated; and that Wan

further discloses that separation is "crucial" in order to allow "different and more efficient

encoding methods [to be] applied to each of the structure and text" (middle of page 7 of

applicant remarks). However, these arguments are not persuasive. In response to

applicant's argument that there is no suggestion to combine the references, the

examiner recognizes that obviousness can only be established by combining or

modifying the teachings of the prior art to produce the claimed invention where there is

some teaching, suggestion, or motivation to do so found either in the references

themselves or in the knowledge generally available to one of ordinary skill in the art.

See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958

F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Wan teaches that the

datatypes can be of different types (paragraph 0050). Hunter teaches that a certain

datatype can be a complex data type with a mixed content model (page 768, S768).

Thus, motivation is found in both Wan (for supporting various datatypes) and Hunter (for

supporting various datatypes, including the complex datatypes), and also that they are

both in the same problem solving area with respect to implementing datatypes, and the

examiner maintains the combination as being proper. Additionally, the applicant

stresses the importance of Wan's structure and text to be separate. However, the

examiner respectfully points out that the applicant's claim language does not explicitly

require that data and structure must be together/not-separated (nor does the claim

language require that a single data stream is required, and assuming arguendo, the

applicant's argument that an "entire data stream" is required does not necessarily imply

that the entire data stream must only store in a non-sequential fashion, a structure, and

a text stream), and thus the applicant's argument is not persuasive.

Conclusion

11.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Wilson Tsui whose telephone number is (571)272-7596.

The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Stephen Hong can be reached on (571) 272-4124. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

W.T. 09/10/07

Wilson Tsui
Patent Examiner
Art Unit: 2178
September 10, 2007

CESAR PAULA
PRIMARY EXAMINER